the pattern 1 as the number of times, increments by 1 the number of times associated with the pattern file of pattern 1, and updates the contents of the pattern file use frequency table.

At this time, as shown in the pattern file use frequency table storage unit 18 of Fig. 1, the pattern file use frequency table comprises the name of the pattern file and the number of times, which shows the frequency of use of this pattern file.

Next, in step 24, because the test of the semiconductor is carried out for one semiconductor using a plurality of test items, that is, patterns files, the control unit 10 determines either a pass or fail for each test item executed on the semiconductor that is the test object.

At this time, in the case that the semiconductor is determined to be defective, the control unit 10 advances the processing to step 26, and in the case that the semiconductor is not determined to be defective, that is, in the case that it is determined to be acceptable, the control unit 10 advances the processing to step 25.

Next, in step 25, the control unit 10 determines whether all of the test times for the types of semiconductor currently undergoing testing have completed, that is, whether the test using the pattern data of all the pattern files has completed.

At this time, in the case that test items remain, the control unit returns to step 22 in order to carry out testing of the next pattern file (for example, the pattern file of pattern 1).

In contrast, the control unit 10 advances the processing to step 26 in the case that it has determined that all the test items have been completed.

Next, in step 26, the control unit 10 determines whether the pattern file use frequency table has been completed.

Specifically, because the pattern file use frequency table is produced by

repeating step 22 to step 25 for the preset number of semiconductors that are the test object, the control unit 10 determines whether or not the preset number of semiconductors has completed.

By this determination, it is determined whether or not the pattern file use frequency table has completed.

At this time, in the case that the control unit 10 has determined that the pattern file use frequency table has been completed, it advances the processing to step 27. In the case that it determines that the pattern file use frequency table has not been completed, it advances the processing to step 22 in order to carry out the remaining semiconductor tests.

Next, in step 27, when the pattern file use frequency table has completed, the control unit 10 initializes each of the memories of the executive memory 17 and advances the processing to step 28.

Next, in step 28, the control unit 10 reads out the pattern files from the buffer memory 13 beginning with the one having the highest use frequency in the pattern file use frequency table, and distributes (stores) them in each memory of the executive memory 17.

At this time, the storing of data in each memory of the executive memory 17 is carried out for pattern files until the free capacity of each memory in the executive memory 17 is insufficient and storage can no longer be carried out.

Thereby, the control unit 10 carries out the redistribution of pattern files arranged in each memory of the executive memory beginning with the pattern files having the highest use frequencies (the largest numbers).

Above, the pattern files are stored in the optimal sequence in each memory of the executive memory 17 while taking into account the use frequency and size.

If the tests are restarted in this condition, the pattern files having a high use frequency are already present in the executive memory 17, and the transfer time for the pattern files is reduced.

However, in the case that, as the test progresses, pattern files that cannot be stored in the executive memory must be used, in the method of the conventional technology, all of the pattern files are deleted and storing the pattern files having a high use frequency in advance depending on the pattern file use frequency table has no meaning.

In order to respond to this problem, the processing of the pattern file transfer from the buffer memory 13 to the executive memory 17 is updated by the method shown in the flowchart in Fig. 3.

In Fig. 3, steps 31 to 3A are identical to the processing content of step 51 to step 5A in the control method shown in the conventional technology.

Specifically, the processing of the present embodiment, wherein each memory in the executive memory 17 is searched, and in the case that the pattern file is not present, the relevant pattern file is transferred from the buffer memory 13 to the executive memory 17, is identical to the processing wherein the pattern memory 44, the MIC memory 45, and the SPG memory 46 in the executive memory are searched, and in the case that the pattern file is not present, the relevant pattern file is transferred from the buffer memory 13 to the executive memory 17.

The point of difference between the conventional technology and the present embodiment is that, in the case that the capacity in each memory of the executive memory 17 that is necessary for the transfer of new pattern files is insufficient, in the conventional technology, the method of initializing the entire the executive memory is used as a method for guaranteeing the capacity for transferring the pattern files, while in